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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,628	09/22/2003	Mats A. Brenner	Honeywell No. H0004494	1190

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HONEYWELL INTERNATIONAL INC.
101 COLUMBIA ROAD
P O BOX 2245
MORRISTOWN, NJ 07962-2245

EXAMINER

MULL, FRED H

ART UNIT

PAPER NUMBER

3662

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/667,628	BRENNER, MATS A.	
	Examiner	Art Unit	
	Fred H. Mull	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23, 26, 28 and 29 is/are rejected.
- 7) ☒ Claim(s) 24-25 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to various objection(s), have been fully considered and are persuasive. The objections have been withdrawn.
2. Applicant's arguments on p. 5, with respect to the rejection(s) have been fully considered but they are not persuasive.

Applicant argues Parkinson's "threshold" is not a "lower confidence limit". However, one would expect a threshold to be set at the lowest signal-to-noise value that the user has confidence in. Thus, the threshold would be a lower confidence limit. Applicant further argues that the differences between setting a minimum threshold and using a lower confidence limit can be understood as a matter of safety, and goes on to discuss this in some detail. However, none of this is included as limitations in the claims. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Objections

3. Claim(s) 23 is/are objected to under 37 CFR 1.75. The claim(s) recites the limitation "the error" in line 13. Since there is both a low power error and a total error, applicant should specify "total error" here. Correction is required.
4. Claim(s) 24 is/are objected to under 37 CFR 1.75. A word appears to be missing at the end of line 1, such as --comprising--. Correction is required.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 23, 26, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Legrand in view of Parkinson.

Legrand discloses:

receiving at least one global positioning satellite radio signal (p. 1, Introduction, 1st ¶); and

calculating a total error in a navigation measurement (equation 26), the total error based in part upon a low-power error contribution (the second term, which should read: $\sigma_{b_r}(k)$), where σ_{b_r} is a function of σ_b (equation 27), and σ_b is a function of the signal-to-noise ratio (equation 1).

Legrand fails to disclose the derivation of the signal-to-noise ratio.

Parkinson discloses:

measuring a wide band power (p. 390, last ¶; p. 391, equation 104);

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measuring a narrow band power (p. 390, last ¶; p. 391, equation 105);

calculating a signal-to-noise ratio from the wide band power and the narrow band power (p. 392, equation 117), where the signal-to-noise ratio is a function of μ_{NP} (equation 117), which is a function of NP_k (equation 116), and NP_k is a function of the wide band power and narrow band power (equation 106);

determining a lower confidence limit of the signal-to-noise ratio (p. 392, line under equation 116). The threshold would be set at the lowest signal-to-noise value that the user has confidence in.; and

the function of a GPS receiver is to determine a navigational measurement (receiver position) based in part on the received radio signal.

It would have been obvious to use the known method of calculation GPS signal signal-to-noise ratio of Parkinson in order to use it in the total error determination of Legrand. It would further be obvious to issue an alert if the total error exceeds an acceptable limit.

6. Claims 23, 26, and 28-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Legrand and Parkinson, as applied to claims 2-8, and in further view of either one of Loh and Braff.

Legrand fails to disclose issuing an alert if the total error exceeds an alert limit.

Loh (col. 8, lines 24-34) and Braff (Figs. 2 and 4) each disclose issuing an alert if the total error exceeds an alert limit.

It would have been obvious to include an alert for the situations where the error minimizing procedure of Legrand fails to minimize the error enough for the resulting measurement to be accurate enough for a user to have confidence in it, particularly when it will be used for landing systems, where human safety is involved.

Allowable Subject Matter

7. Claim(s) 24-25 and 27 would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred H. Mull whose telephone number is 571-272-6975. The examiner can normally be reached on Monday through Friday from approximately 9-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred H. Mull
Examiner
Art Unit 3662

fhm



THOMAS H. TARCZA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600